

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-42 are pending in the present application. Claims 1, 3-6, 8, 10, 12 and 13 are amended and Claims 15-42 are added by the present amendment.

Claim amendments and new claims find support in the specification as originally filed, at least at page 41, lines 14-18, page 38, lines 21-24, and page 41, lines 22-25. Thus, no new matter is added.

In the outstanding Office Action, Claims 1-7 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,578,066 to Logan et al. (herein "Logan") in view of "RFC 2182" by Elz et al. (herein "Elz"); and Claims 8-14 were rejected under 35 U.S.C. § 103(a) as unpatentable over Logan in view of Elz.

Initially, Applicant and Applicant's representative gratefully acknowledge the courtesy of a personal interview with Examiner Strange on April 18, 2006. During the interview, differences between the references and the present invention were discussed. Comments discussed during the interview are reiterated below.

Applicant respectfully traverses the rejection of Claims 1-7 under 35 U.S.C. § 103(a) as unpatentable over Logan and Elz, with respect to amended independent Claims 1, 3, 5 and 6.

Amended Claim 6 is directed to a domain name system inquiry apparatus that includes, in part, a request receiving mechanism configured to receive a domain name inquiry request from a client, a request transferring mechanism configured to create first and second domain name inquiry requests based on the domain name inquiry request and at least one of a location information of the apparatus and a server information. The request transferring mechanism is also configured to transfer the first and second domain name inquiry requests

to first and second domain name system servers, respectively. In addition, the apparatus includes a response receiving mechanism configured to receive a first domain name inquiry response to the first domain name inquiry request from the first domain name server and a second domain name inquiry response to the second domain name inquiry request from the second domain name server. The apparatus also includes a request responding mechanism configured to select the second domain name inquiry response based at least on server information corresponding to the first and second domain name system servers and to send the second domain name inquiry response corresponding to the second domain name system server to the client. Independent Claims 1, 3, and 5 include similar features directed to other classes of inventions.

In a non-limiting embodiment, Applicant's Figure 1 shows a domain name system inquiry apparatus that includes a request receiving section 1 (e.g., request receiving mechanism) that may receive a domain name inquiry request from a client. In this example, the domain name inquiry request is provided to a request transferring section 2 (e.g., request transferring mechanism) that is configured to create first and second domain name inquiry requests that may be transferred to first and second domain name system servers, respectively. The first and second domain name inquiry requests are created by the request transferring section 2 based on the domain name inquiry request received from the client, and may also be based on a location of the apparatus (e.g., a network sub-domain of the apparatus which may be used to select a desirable target domain name server) and/or server information of the first and second domain name system servers (e.g., a stored address of the respective server which may be used to address a domain name inquiry request).

Further, the example apparatus of Applicant's Figure 1 includes a response receiving section 14 (e.g., response receiving mechanism) that may receive first and second domain name inquiry responses from the first and second domain name system servers, respectively.

In addition, the example apparatus includes an algorithm receiving section 11, algorithm management section 10, algorithm processing section 12, response selection section 15 and request sending section 13 (e.g., request responding mechanism) that may select the second domain name inquiry response based on server information for the first and second domain name system servers. For example, the server information may include priority levels for each server and in this example, the priority of the second server may be higher than the priority of the first server, thereby resulting in the selection of the second domain name inquiry response.

In particular, the claimed request transferring mechanism advantageously creates first and second domain name inquiry requests and transfers those requests to domain name servers so that a preferred response from the two servers may be selected.

As discussed during the interview, Logan and Elz, whether taken individually or in combination, fail to teach or suggest each feature of the independent claims.

First, as discussed during the interview, Logan and Elz are silent regarding receiving plural domain name inquiry responses as a result of a single domain name inquiry request received from a client. Accordingly, Logan and Elz fail to teach or suggest an apparatus configured to “receive a domain name inquiry request from a client . . . create first and second domain name inquiry requests based on the domain name inquiry request received [and] receive a first domain name inquiry response to the first domain name inquiry request [and] a second domain name inquiry response to the second domain name inquiry request,” as recited in Claim 6 and as similarly recited in independent Claims 1, 3 and 5.

Moreover, Logan and Elz fail to teach or suggest a request transferring mechanism that creates first and second domain name inquiry requests based on a received domain name inquiry request and at least one of a location of the apparatus or server information regarding the first and second domain name servers.

Logan describes a method of selecting an optimum one of five content servers that host content for “www.akeon.com” based on a proximity of the client to each of the five content servers.¹ Thus, Logan indicates a method for selecting an IP address for a particular content server when plural content servers are available to be mapped to a particular host name. However, the method of Logan does not include creating plural domain name system inquiry requests. On the other hand, as discussed above, Logan describes a method that a domain name system server may perform to select an appropriate IP address associated with one of several content servers all having the same host address (e.g., www. akeon.com) in response to a received domain name inquiry request. Logan then describes inserting the selected IP address into a domain name inquiry response, and is silent regarding any method of creating a domain name inquiry request or creating a domain name inquiry request based on a received domain name inquiry request.

Further, Applicant respectfully submits that Elz is silent regarding any method of creating domain name inquiry requests based on received domain name inquiry requests. Accordingly, Applicant respectfully submits that Logan and Elz fail to teach or suggest a “request transferring mechanism configured to create first and second domain name inquiry requests based on the domain name inquiry request received by said request receiving mechanism,” as recited in Claim 6 and as similarly recited in independent Claims 1, 3 and 5.

Further, the method of Logan does not include sending plural domain name system inquiry requests to plural domain name system servers. As discussed above, Logan describes a method that a domain name system server may perform to select an IP address for a single response. Thus, although Logan discusses a method of receiving a domain name inquiry request at a domain name server, Logan is silent regarding sending or transferring plural domain name system inquiry requests to domain name servers.

¹ Logan at column 9, line 58, to column 10, line 15.

Further, Logan does not suggest the claimed approach, but actually teaches an opposite approach. Logan describes receiving a single domain name inquiry request and selecting from plural IP addresses to create and send a single domain name inquiry response, which is opposite of the claimed approach that includes transferring plural domain name inquiry requests and receiving plural domain name inquiry responses. Further, Applicant respectfully submits that Elz is also silent regarding any method of transferring plural domain name system inquiry requests to domain name servers. Accordingly, Applicant respectfully submits that Logan and Elz fail to teach or suggest a “request transferring mechanism configured to . . . transfer said first and second domain name inquiry requests to the first and second domain name system servers,” as recited in Claim 6 and as similarly recited in independent Claims 1, 3 and 5.

In addition, the method of Logan does not teach or suggest receiving plural domain name system responses from plural domain name system servers. Further, Applicant respectfully traverses the assertion in the outstanding Office Action that Logan describes that feature at column 10, lines 52-57.² In the cited passage and elsewhere, Logan merely indicates a domain name server method of receiving a single domain name inquiry request, selecting a preferred IP address, and sending a single domain name inquiry response. However, nowhere in Logan is there a suggestion to receive plural domain name inquiry responses in response to plural domain name inquiry requests.

Further, Applicant respectfully submits that Elz is likewise silent regarding any receiving of plural domain name system responses. Elz merely indicates a method of topologically and geographically locating secondary domain name servers,³ and providing firewalled servers with dual addresses, with one address for a firewalled portion of a network

² Office Action at page 5, lines 11-13.

³ Elz at paragraph 3.1.

and the other address for an open portion of the network.⁴ Thus, according to Elz, devices within the firewall retrieve information about firewalled hosts (e.g., domain name inquiry responses) using the firewalled address and devices in the open network retrieve information about open hosts using the open address. However, Elz does not describe or discuss any receiving of plural domain name system responses.

Thus, Applicant respectfully submits that Logan and Elz fail to teach or suggest a “response receiving mechanism configured to receive a first domain name inquiry response to the first domain name inquiry request. . . and a second domain name inquiry response from the second domain name inquiry request,” as recited in Claim 6 and as similarly recited in independent Claims 1, 3 and 5.

In addition, Logan and Elz fail to teach or suggest selecting between plural received domain name system responses. As discussed above, Logan and Elz fail to teach or suggest receiving plural domain name system responses. Therefore, they must also fail to teach or suggest selecting between plural received domain name system responses. Accordingly, Applicant respectfully submits that Logan and Elz fail to teach or suggest a “request responding mechanism configured to select the second domain name inquiry response,” as recited in Claim 6 and as similarly recited in independent Claims 1, 3 and 5.

Accordingly, at least for the reasons discussed above and during the interview, Applicant respectfully submits that independent Claims 1, 3, 5 and 6, and claims depending therefrom, are allowable.

In addition, Applicant respectfully traverses the rejection of Claims 8-14 under 35 U.S.C. § 103(a) as unpatentable over Logan and Elz, with respect to amended independent Claims 8, 10, 12 and 13.

⁴ Elz at page 6, last paragraph, to page 7 second paragraph.

Amended Claim 13 is directed to a domain name system inquiry apparatus that includes, in part, a request receiving mechanism configured to receive, from a client, a domain name inquiry request that includes a host name and a request for a domain name server to transmit a domain name inquiry response, a request transferring mechanism configured to transfer the domain name inquiry request to domain name system servers based on stored server information, and a response receiving mechanism configured to receive domain name inquiry responses each including an IP address indicator including (i) an IP address corresponding to the host name or (ii) an indication that the IP address corresponding to the host name is unknown. The IP address indicator in the first domain name inquiry response is different than the IP address indicator in the second domain name inquiry response. In addition, the apparatus includes a request responding mechanism configured to select the second domain name system server based at least on the server information corresponding to the first and second domain name servers and to send the second domain name inquiry response corresponding to the second domain name system server to the client. Independent Claims 8, 10 and 12 include similar features directed to other classes of inventions.

Thus, embodiments according to Claims 8, 10, 12 and 13 may advantageously receive a host name to IP address lookup request (e.g., domain name inquiry request) from a client, create and send first and second domain name inquiry requests to first and second domain name inquiry servers and receive first and second domain name inquiry responses. The first and second domain name inquiry responses include IP address indicators that are different. Although, the domain name inquiry responses are different, the present invention appropriately selects the second domain name inquiry response, based at least on stored server information.

Applicant respectfully submits that Logan and Elz fail to teach or suggest all the features of Claims 8, 10, 12 and 13. For example, Logan and Elz fail to teach or suggest receiving first and second domain name inquiry responses having IP address indicators that are different. Logan and Elz do not describe any method of receiving plural domain name inquiry responses that include an IP address indicator that includes an IP address of a host or an indication that the IP address is unknown. Further, Logan and Elz fail to teach or suggest any method of receiving first and second domain name inquiry responses where the IP address indicator of the first domain name inquiry response is different than the IP address indicator of the second domain name inquiry response.

Accordingly, at least for the reasons discussed above, Applicant respectfully submits that independent Claims 8, 10, 12 and 13, and claims depending therefrom, are also allowable.

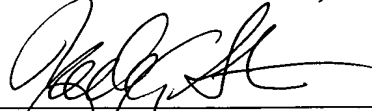
Moreover, Applicant respectfully submits that new dependent Claims 15-42 recite features not taught or suggested by the prior art. For example, Claim 15 is directed to selecting the second domain name inquiry response based on server priority information in the stored server information; Claim 16 is directed to selecting the second domain name inquiry response based on a failure counter of the first domain name system server exceeding a predetermined value; Claim 17 is directed to selecting the second domain name inquiry response when a response time of the second domain name inquiry response is greater than a response time of the first domain name inquiry response; and Claim 27 is directed to means for receiving and storing a current location of the apparatus and a means for transferring the domain name inquiry based on the location information. Applicant respectfully submits that Logan and Elz fail to teach or suggest these features.

Accordingly, Applicant respectfully submits that dependent Claims 15-42 are also allowable.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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